

a photodetector disposed within said tube assembly proximate to said second lens, with said second lens being located between said first lens and said photodetector, said photodetector being movable bi-directionally [along the axis] within and lengthwise of said tube assembly;

a first control rod extending parallel to said tube assembly, said first control rod having a proximal end and a distal end with said distal end coupled to said second lens;

a first drive means comprising a first reversible electric motor mounted within said handle for moving said first control rod bi-directionally lengthwise of said tube assembly so as to cause said first control rod to move said second lens [along said axis] lengthwise of said tube assembly toward or away from said first lens according to the direction of movement of said first control rod, whereby to adjust the magnification of the image transmitted by said second lens to said photodetector;

a second control rod extending parallel to said tube assembly, said second rod having a proximal end and a distal end with said distal end coupled to said photodetector; [and]

a second drive means comprising a second reversible electric motor mounted within said handle for moving said second control rod bi-directionally lengthwise of said tube assembly so as to cause said second control rod to move said photodetector lengthwise of said tube assembly toward or away from said second lens according to the direction of movement of said second control rod, whereby to adjust the focusing of the image transmitted by said second lens to said photodetector; and

switch means for selectively operating said first and second electric motors so as to cause bidirectional movement of said first and second rods lengthwise of said tube assembly.

52. (Twice Amended) An endoscope according to claim 50 [further including] wherein said switch means comprises first and second manually operable switch means carried by said handle for controlling operation of said first and second electric motors respectively.

58. (Twice Amended) An endoscope according to claim [50] 52 wherein said tube assembly comprises an inner tube and an outer tube, and further including a plurality of light-transmitting elements disposed between said inner and outer tubes, each of said light-transmitting elements having a distal end and a proximal end, with the distal ends thereof terminating at the distal end of said tube assembly and the proximal ends thereof projecting out from between said inner and outer tubes into a cavity in said handle, and means carried by said handle for injecting light into the proximal ends of said light-transmitting elements, whereby to provide light for illuminating the space in front of said distal end of said tube assembly.

61. (Amended) An endoscope according to claim [59 further including] 58 wherein said light injecting means comprises a flexible fiber optic cable attached to said handle and coupled to said proximal ends of said light-transmitting elements for injecting light into the proximal ends of said light-transmitting elements from a remote light source.

62. (Twice Amended) An endoscope according to claim [60] 58 wherein said means for injecting light comprises a light source mounted within said handle and coupled to the proximal ends of said light-transmitting elements.

67. (Twice Amended) An endoscope according to claim [65] 50 further comprising a third lens disposed between the distal end of said tube and said first lens.

73. (Twice Amended) An endoscope comprising:

a handle;

a tube assembly having a proximal end and a distal end, with said proximal end secured to said handle, said tube assembly comprising an inner tube and an outer tube;

a plurality of fiber optic elements extending lengthwise of and disposed between said inner and outer tubes, each of said fiber optic elements having a first end and a second end with the first ends of said fiber optic elements terminating at the distal end of said tube assembly and the second ends of said fiber optic elements projecting out from the proximal ends of said tube assembly into a cavity in said handle;

[a handle coupled to the proximal end of said tube;]

a first bi-directional motor disposed in a cavity in said handle;

a first lens disposed in [the distal end of] said inner tube at the distal end of said inner tube;

a photodetector disposed in said inner tube proximate said first lens [in the distal end of said tube], said photodetector being movable lengthwise of said inner tube toward and away from said first lens;

a first control rod carried by said tube assembly, said first control rod having a first end and a second end with the first end of said first control rod being coupled to said photodetector; said control rod being [carried by and] movable lengthwise of said tube assembly, whereby to move said photodetector toward or away from said first lens;

a first gear mechanism disposed in a cavity in said handle, said first gear mechanism being coupled between the second end of said first control rod and said first bi-directional motor for moving said first control rod lengthwise toward or away from said distal end of said tube in response to operation of said first motor;

a second zoom lens disposed in said inner tube between said first lens and said photodetector; said zoom lens being movable lengthwise of said inner tube whereby to vary the magnification of the image that it transmits from said first lens to said photodetector;

a second bi-directional motor disposed in a cavity in said handle;

a second control rod carried by said tube assembly, said second control rod having a first end and a second end with the first end of said second control rod being coupled to said zoom lens, said second control rod being [carried by and] movable lengthwise of said tube assembly, whereby to move said zoom lens toward or away from said first lens; [and]

a second gear mechanism disposed in a cavity in said handle, said second gear mechanism being coupled between the second end of said second control rod and said second bi-directional motor for moving said second control rod lengthwise toward or away from said distal end of said tube assembly in response to operation of said second motor;

means carried by said handle and coupled to the second ends of each of said fiber optic elements for injecting light into said second ends of said fiber optic elements;

first switch means carried by said handle and connected to said first motor for operating said first motor so as to selectively cause said first gear means to drive said first rod in a first direction toward the distal end of said tube

assembly or in a second direction away from said distal end of said tube assembly; and

second switch means carried by said handle and connected to said second motor for operating said second motor so as to selectively cause said second gear means to drive said second rod in a first direction toward the distal end of said tube assembly or in a second direction away from said distal end of said tube assembly.

76. (Twice Amended) An endoscope according to claim [75] 73 wherein said means for injecting light into said fiber optic elements comprises an illumination assembly disposed in a cavity region of said handle.

Please add the following new claim:

79. An endoscope according to claim 73 wherein said means for injecting light into said fiber optic elements comprises a light-transmitting cable attached to and projecting from said handle for injecting light from a light source located outside of said handle.